

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method in a data processing system for providing host information associated with a computer network, the method comprising:

receiving a request for host information for a remote computer from a requestor, wherein the request from the requester includes ~~one of~~ a host name of the remote computer or an Internet Protocol address and is received from the requestor, wherein the request from the requestor is received by a domain name system (DNS) server that provides mapping between logical names and physical addresses of devices coupled to the computer network, and wherein the request from the requester is a DNS query that requests a text record associated with the remote computer that is stored in the DNS server;

identifying, by the DNS server, a media access control address and a subnet mask using the request received by the DNS server from the requestor, wherein the text record is accessed by the DNS server using the host name of the remote computer, and wherein the media access control address and the subnet mask are both stored together in a text record for both a name-to-address file and an address-to-name file that are maintained by the DNS server; and

returning, by the DNS server, a response to the requestor, wherein the response includes the media access control address and the subnet mask, wherein the media access control address and the subnet mask are received from a dynamic host configuration protocol (DHCP) server and are stored in the DNS server, wherein the DHCP server (i) obtains the media access control address from the remote computer when the remote computer requests an internet protocol (IP) address from the DHCP server for use by the remote computer when accessing the computer network, and (ii) sends an update to the DNS server to place the media access control address and the subnet mask in a cache of the DNS server;

wherein the step of receiving the request comprises receiving (i) a first DNS query from the requestor for the IP address of the remote computer using the host name of the remote computer and (ii) a second DNS query from the requestor for the text record containing the

media access control address and the subnet mask using the host name of the remote computer; and

wherein the requestor generates a wake-up packet using the host information and sends the wake-up packet to the remote computer, wherein the wake-up packet includes the subnet mask and is broadcast on the computer network using the media access control address returned to the requester by the DNS server.

2-7. (Cancelled)

8. (Currently Amended) A data processing system for providing host information associated with a computer network, the data processing system comprising:

receiving means for receiving, by the data processing system, a request for host information for a remote computer from a requestor wherein the request from the requester includes one of a host name of the remote computer or an Internet Protocol address and is received from the requester, wherein the request is received by a domain name system (DNS) server that provides mapping between logical names and physical addresses of devices coupled to the computer network, and wherein the request from the requester is a DNS query that requests a text record associated with the remote computer that is stored in the DNS server;

identifying means for identifying, by the DNS server data processing system, a media access control address and a subnet mask for the remote computer using the request received by the DNS server from the requestor, wherein the text record is accessed by the DNS server using the host name of the remote computer, and wherein the media access control address and the subnet mask are both stored together in a text record for both a name-to-address file and an address-to-name file that are maintained by the DNS server; and

returning means for returning, by the DNS server data processing system, a response to the requestor, wherein the response includes the media access control address and the subnet mask for the remote computer, wherein the media access control address and the subnet mask are received from a dynamic host configuration protocol (DHCP) server and are stored in the DNS server, wherein the DHCP server (i) obtains the media access control address from the remote computer when the remote computer requests an internet protocol (IP) address from the DHCP server for use by the remote computer when accessing the computer network, and (ii) sends an

update to the DNS server to place the media access control address and the subnet mask in a cache of the DNS server;

wherein the receiving means includes means for receiving (i) a first DNS query from the requestor for the IP address of the remote computer using the host name of the remote computer and (ii) a second DNS query from the requestor for the text record containing the media access control address and the subnet mask using the host name of the remote computer; and

wherein the requestor generates a wake-up packet using the host information and sends the wake-up packet to the remote computer, wherein the wake-up packet includes the subnet mask and is broadcast on the computer network using the media access control address returned to the requester by the DNS server.

9-14. (Cancelled)

15. (Currently Amended) A computer program product encoded in a computer readable storage medium and operable in a data processing system for providing host information associated with a computer network, the computer program product comprising:

first instructions for receiving, by the data processing system, a request for host information for a remote computer from a requestor wherein the request from the requester includes one of a host name of the remote computer or an Internet Protocol address and is received from the requestor, wherein the request is received by a domain name system (DNS) server that provides mapping between logical names and physical addresses of devices coupled to the computer network, and wherein the request from the requester is a DNS query that requests a text record associated with the remote computer that is stored in the DNS server;

second instructions for identifying, by the DNS server data processing system, a media access control address and a subnet mask for the remote computer using the request received by the DNS server from the requestor, wherein the text record is accessed by the DNS server using the host name of the remote computer, and wherein the media access control address and the subnet mask are both stored together in a text record for both a name-to-address file and an address-to-name file that are maintained by the DNS server; and

third instructions for returning, by the DNS server data processing system, a response to the requestor, wherein the response includes the media access control address and the subnet

mask for the remote computer, wherein the media access control address and the subnet mask are received from a dynamic host configuration protocol (DHCP) server and are stored in the DNS server, wherein the DHCP server (i) obtains the media access control address from the remote computer when the remote computer requests an internet protocol (IP) address from the DHCP server for use by the remote computer when accessing the computer network, and (ii) sends an update to the DNS server to place the media access control address and the subnet mask in a cache of the DNS server;

wherein the first instructions comprises instructions for receiving (i) a first DNS query from the requestor for the IP address of the remote computer using the host name of the remote computer and (ii) a second DNS query from the requestor for the text record containing the media access control address and the subnet mask using the host name of the remote computer; and

wherein the requestor generates a wake-up packet using the host information and sends the wake-up packet to the remote computer, wherein the wake-up packet includes the subnet mask and is broadcast on the computer network using the media access control address returned to the requester by the DNS server.

16-21. (Cancelled)